UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,586	02/22/2002	Tatsuo Yajima	219227US2 CONT	7302

			EXAMINER
22850	7590	12/07/2005	STEVENS, THOMAS H

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
   Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*06 September 2005*</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-9,11 and 12* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-9,11 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-3, 5-9, and 11-12 were examined.

2.   Claims 4 and 10 were cancelled.

Section I: Supplemental Office Action

3.   The following action supercedes the action sent 12/01/05 by which finality was

incorrectly stated.

Section II: Non-Final Office Action (3rd Office Action)

Claim Interpretation

4.   Office personnel are to give claims their **"broadest reasonable interpretation"**

in light of the supporting disclosure. *In re Morris,* 127 F.3d 1048, 1054-55, 44 USPQ2d

1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited

in the claim are not read into the claim. *In re Prater,* 415 F.2d 1393, 1404-05, 162

USPQ 541, 550-551(CCPA 1969). See *also *In re Zletz,* 893 F.2d 319, 321-22, 13

USPQ2d 1320, 1322(Fed. Cir. 1989) ("During patent examination the pending claims

must be interpreted as broadly as their terms reasonably allow") .... The reason is

simply that during patent prosecution when claims can be amended, ambiguities should

be recognized, scope and breadth of language explored, and clarification imposed ....

An essential purpose of patent examination is to fashion claims that are precise, clear,

correct, and unambiguous. Only in this way can uncertainties of claim scope be

removed, as much as possible, during the administrative process. The examiner

interprets the dynamic perspective distortion as the inspection item of a movable body

such as an automobile to evaluate the static perspective distortion of an object in a

stationary state when it is seen through a sheet of glass, to evaluate the perspective

distortion of the object seen through the glass sheet in a state of being driven

(specification: pg.3, lines 3-9). Furthermore, examiner interprets the virtual evaluation as

the orthogonal grid pattern (specification: pg. 5, lines 7-10).

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1-3, 5-9, and 11-12 rejected under 35 U.S.C. 102(b) as being disclosed

by Kurumisawa et al. "Development of an Optical Distortion Measuring Technique"

(1999) (hereafter Kurumisawa). Kurumisawa discloses new method of measurement

and evaluation for an optical distortion of windshield glass (abstract).

Claim 1. A method for evaluating dynamic perspective distortion a transparent body

(See claim interpretation; pg.299, left column introduction, lines 8-10), comprises the

steps of: producing a model of three-dimensionally curved shape of transparent body

(See claim interpretation; pg.299, left column introduction, lines 8-10) having refractive

index (inherent to the science of optics: Snell's Law); determining an eye point (pg.302,

figure 14 with pg. 303,6-14) at side of the model of three-dimensionally curved shape

and a virtual evaluation pattern (See claim interpretation; pg.300, figure 3 (checkered

pattern with glass (orthogonal) and left and right columns, 2nd and 1st paragraphs,

respectively)) having a plurality of evaluation points (pg.302, left column, lines 10-22

with figures 11 and 13) at the other side of the model dimensionally curved shape;

observing, from the eye point (pg.302, figure 14 with pg. 303,6-14), three-dimensionally

the virtual evaluation pattern (See claim interpretation; pg.300, figure 3 (checkered

pattern with glass (orthogonal) and left and right columns, 2nd and 1st paragraphs,

respectively)) through the transparent body (See claim interpretation; pg.299, left

column introduction, lines 8-10), extracting perspective evaluation points (pg.302, left

column, lines 10-22 with figures 11 and 13) as images evaluation points (pg.302, left

column, lines 10-22 with figures 11 and 13), obtained by observing through the

transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10),

a two-dimensional picture image obtained by the observation, and obtaining distance

values of adjacent perspective evaluation points (pg.302, left column, lines 10-22 with

figures 11 and 13); determining an optional value be a reference value (pg.300, right

column, optical distortion equation with figure 5: lmin)), among the distance values, and

evaluating the dynamic perspective distortion of the transparent body (See claim

interpretation; pg.299, left column introduction, lines 8-10) by obtaining ratios (pg.300,

right column, optical distortion equation with figure 5)) of the distance values to the

reference value (pg.300, right column, optical distortion equation with figure 5: lmin)).

Claim 2. The method of Claim 1, wherein: the dynamic perspective distortion the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) evaluated based on the rate of change of the ratios (pg.300, right column, optical distortion equation with figure 5)) of the distance values to the reference value (pg.300, right column, optical distortion equation with figure 5: Imin)).

Claim 3. The method of Claim 1, wherein: the minimum value among the distance values selected as the reference value (pg.300, right column, optical distortion equation with figure 5: Imin)), and the dynamic perspective distortion of the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is evaluated based on the maximum value among the ratios (pg.300, right column, optical distortion equation with figure 5)) of the distance values with respect to the minimum value.

Claim 5. The method of Claim 1, wherein: the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is at least one selected from a glass sheet and a resinous plate.

Claim 6. The method of a transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) according to Claim 1, wherein: the image seen through the model of three-dimensionally curved shape of the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is animation.

Claim 7. A method for correcting three-dimensionally curved shape of a transparent

body (See claim interpretation; pg.299, left column introduction, lines 8-10), which

comprising: the steps of: step of producing a model of three-dimensionally curved shape

of a transparent body (See claim interpretation; pg.299, left column introduction, lines 8-

10) having a predetermined refractive index (inherent to the science of optics: Snell's

Law); determining an eye point (pg.302, figure 14 with pg. 303,6-14) at a side of the

model of three-dimensionally curved shape and a virtual plurality of evaluation the

model of three-evaluation pattern having a points at the other side dimensionally curved

shape; observing, from the eye point (pg.302, figure 14 with pg. 303,6-14), the virtual

evaluation pattern (See claim interpretation; pg.300, figure 3 (checkered pattern with

glass (orthogonal) and left and right columns, 2nd and 1st paragraphs, respectively))

through the transparent body (See claim interpretation; pg.299, left column introduction,

lines 8-10), extracting perspective evaluation points (pg.302, left column, lines 10-22

with figures 11 and 13) as images evaluation points (pg.302, left column, lines 10-22

with figures 11 and 13), obtained by observing through the transparent body (See claim

interpretation; pg.299, left column introduction, lines 8-10), in a two-dimensional picture

image obtained by the observation , and obtaining distance values between adjacent

perspective evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13);

the determining an optional value be a reference value (pg.300, right column, optical

distortion equation with figure 5: lmin)), among these distance values; evaluating the

dynamic perspective distortion of the transparent body (See claim interpretation;

pg.299, left column introduction, lines 8-10) by obtaining ratios (pg.300, right column,

optical distortion equation with figure 5)) of the distance values the reference value

(pg.300, right column, optical distortion equation with figure 5: Imin)), correcting the

three-dimensionally curved the transparent body (See claim interpretation; pg.299, left

column introduction, lines 8-10) according to the evaluation.

Claim 8. The of Claim 7, wherein: the dynamic perspective shape distortion the

transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10)

evaluated based on the rate of change of the ratios (pg.300, right column, optical

distortion equation with figure 5)) of the distance values the reference value (pg.300,

right column, optical distortion equation with figure 5: Imin)).

Claim 9. The method of Claim 7, wherein: the minimum value among the distance

values is selected as the reference value (pg.300, right column, optical distortion

equation with figure 5: Imin)), and the dynamic perspective distortion of the transparent

body (See claim interpretation; pg.299, left column introduction, lines 8-10) is evaluated

based on the maximum value among the ratios (pg.300, right column, optical distortion

equation with figure 5)) the distance values with respect to the minimum value.

Claim 11. The method of Claim 7, wherein: the transparent body (See claim

interpretation; pg.299, left column introduction, lines 8-10) is at least one selected from

a plate glass sheet and a resinous plate (part of the windshield).

Claim 12. The method of Claim 7, wherein: the image seen through the model of three-

dimensionally curved shape of the transparent body (See claim interpretation; pg.299,

left column introduction, lines 8-10) is animation-displayed.

Section III: Response to Applicant's Arguments (2nd Office Action)

101

7.   Applicant is thanked for addressing this issue. Rejection is withdrawn.

102

8.   Applicant's arguments, see pages 6-12, filed 9/6/05, with respect to the rejections

of claims 1-3, 5-9, and 11-12 under 102(b) have been fully considered and are

persuasive. Therefore, the rejection has been withdrawn. However, upon further

consideration, a new ground of rejection is made in view of Kurumisawa et al.

Citation to Relevant Prior Art

9.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure: US Patent 4,310,242: teaches an apparatus for analyzing the

deleterious characteristics of optically transparent bodies, including distortion.
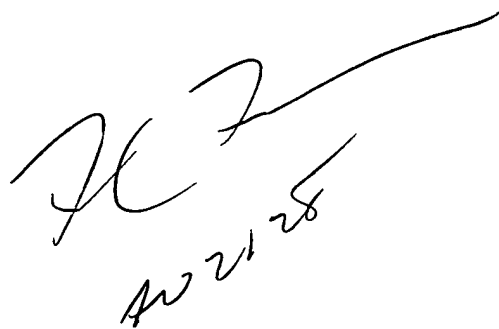

Correspondence Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-

3715, Monday-Friday (8:00 am- 4:30 pm EST).

If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Leo Picard ((571) 272-3749). The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov.. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

November 21, 2005

TS